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## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

06/08/2009

Horst Kasper  
13 Forest Drive  
Warren, NJ 07059

EXAMINER

KOHARSKI, CHRISTOPHER

ART UNIT

PAPER NUMBER

3763

DATE MAILED: 06/08/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,581	07/22/2003	Holger Soring	SOR 205	7516

TITLE OF INVENTION: ULTRASONIC WOUND TREATMENT APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	09/08/2009

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

**HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**  
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**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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7590                    06/08/2009

Horst Kasper  
13 Forest Drive  
Warren, NJ 07059

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

### **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,581	07/22/2003	Holger Soring	SOR 205	7516

TITLE OF INVENTION: ULTRASONIC WOUND TREATMENT APPARATUS

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nonprovisional	YES	\$755	\$300	\$0	\$1055	09/08/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
KOHARSKI, CHRISTOPHER	3763	604-022000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

- Issue Fee  
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4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/624,581	07/22/2003	Holger Soring	SOR 205	7516
7590	06/08/2009		EXAMINER	
<b>Horst Kasper</b> 13 Forest Drive Warren, NJ 07059				KOHARSKI, CHRISTOPHER
			ART UNIT	PAPER NUMBER
			3763	
DATE MAILED: 06/08/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 507 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 507 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/624,581	SORING ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHRISTOPHER D. KOHARSKI	3763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 5/18/2009.
2.  The allowed claim(s) is/are 2-17, 27-31 and 33-34.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

/Christopher D Koharski/  
Examiner, Art Unit 3763

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Horst Kasper on 05/22/2009.

**BEGINNING OF AMENDMENTS**

**IN THE SPECIFICATION**

Please amend the specification as follows:

**CROSS REFERENCE TO RELATED APPLICATIONS**

The present application includes the subject matter and claims the priority of provisional Patent Application Serial No. 60/397,735 filed on July 22, 2002 and entitled "Medical Treatment Apparatus".

**FIELD OF THE APPLICATION**

The invention relates generally to fume suction devices used in conjunction with sonotrodes.

Preferably apparatus Many apparatuses are is employed which uses the advantages of ultrasound technology, for example the piezoceramic principle or the magnetostrictive principle, in connection with the employment of such apparatus, for example for cutting and for treatment of wounds. Here preferably the piezoceramic

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principle is employed since this piezo ceramic principle generates much less heat as compared with the magnetostrictive principle.

### **DESCRIPTION OF RELATED ART**

Bad smelling and damaging fume gases can be generated in connection with the use of such apparatus, which ~~fume gases~~ can interfere with the sight of the operator and can lead to an endangerment of the health by the release of damaging aerosols, toxic gases and human viruses.

Fume suction devices are installed in most operating theaters. ~~wherein t~~The fume suction devices suck out the field of operation in the large area through a central ventilation device. Such fume sucking off devices ~~did not prove itself such that today are not as useful today, so predominantly small apparatuses operated by an assistant are~~ is employed, ~~which small apparatus is operated by an assistant~~. Here ~~t~~he a so-called suction funnel is held by hand in the neighborhood of the operating tool, such that vapors and fume gases generated during the thermal tissue coagulation and during electro-surgical cutting can be sucked off immediately at the field of generation. In addition the aerosols released during the bactericidal treatment of wounds are sucked off with the aid of such apparatus.

It is a disadvantage of this method that the suck-off sucking apparatus has to be held by an auxiliary person, wherein the auxiliary person then is not available for other activities.

### **SUMMARY OF INVENTION**

It is an object of the invention to generate a medical treatment apparatus in particular for the treatment of wounds, which medical treatment apparatus does not exhibit the above described disadvantage, however can be employed with the same effectiveness.

This object is accomplished by sliding an adaptation sleeve over the sonotrode of the medical treatment apparatus and by attaching the adaptation sleeve at the hand piece, wherein the adaptation sleeve is furnished with a connector for receiving a suction hose.

~~Particular embodiments of the apparatus can be taken from the sub claims.~~

The feed region of ~~the~~ a sonotrode is covered with a sleeve screwed on the front region of the hand piece in a usual ultrasound apparatus, in particular for the bactericidal treatment or for the debridement of wounds. This sleeve can of course also be plugged or can be connected by way of a clamping cone or by a bayonet catch. After removal of the sleeve then the adapter part is set onto the hand piece and screwed on with a thread.

This adapter part is furnished with a receiver part for a suction hose, wherein the suction hose in turn is connected with a separating and depositing device. A further hose leads from this separating and depositing device to the suction device. The apparatus "Atmo-Safe™" produced and distributed by the company Atmos has proven to be a particularly effectively working suction apparatus. The field filter installed in this apparatus is tuned to such a fine degree that the smallest components up to the size of viruses can be filtered out.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

The treatment apparatus according to the present invention is now to be illustrated by way of an embodiment shown in the drawings.

~~There is shown in:~~

Figure 1 a side elevation view of a usual hand piece with an inserted sonotrode;

Figure 2 the hand piece with a screwed off sleeve;

Figure 3 a separate arrangement of hand piece and adaptation part;

Figure 4 a side elevation view of a hand piece with a screwed on adaptation device;

Figure 5 a complete set up of a suctioning device.

### **DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION**

The medical treatment apparatus ~~the as~~ illustrated in figure 1 comprises a hand piece (1) with a connector (5) for the connection line to the storage container for flushing liquid such as rock salt solution and others and also medical healing agents such as heparin, antibiotics and the like, wherein the flushing liquid and the medical healing agents are then fed to the tip of the sonotrode through the flushing line (6) and the valve (7) and through a channel within the sonotrode (3) equipped with an ultrasound vibration generator operating from a frequency region of from 5 kHz to 60kHz and preferably from 15kHz to 30kHz. The ultrasound energy is fed to the hand piece through the electro-connection (4) in a conventional way.

The hand piece is further equipped with a sonotrode receiver, wherein a sonotrode (3) is exchangeably screwed into the sonotrode receiver. The attachment

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region of the sonotrode is covered with a sleeve (2), wherein the sleeve can be removed with an attachment thread. Preferably, the sleeve (2) with its attachment thread is screwed into the inner cylindrical thread (8) of the hand piece (1). The adapter part can be attached to the hand piece (1) by way of the attachment thread (9) after the screwing off and the removal of the sleeve (2).

This adapter part comprises a connection bush (9), wherein with the connection bush (9) transitioning into the adaptation sleeve (10). The receiver part (12) with the hose connection (13) is disposed at this adaptation sleeve (10) and the suction tube (11) is attached at the oppositely disposed end.

The suction hose (14) is inserted into the hose connection (13), wherein with the hose (14) ~~then ends~~ ending in the separator (15). This separator (15) filters the large aerosol components out in a first step. This can be liquids or also solid components. Such separator (15) is primarily employed to care for the main filter disposed in the suction apparatus (A). The separator (15) can here be a conventional water trap or a HEPA-filter. Such a suction apparatus (A) is for example offered and distributed by the company Atmos under the Trademark AtmoSafe™.

The suction tube (11) attached at the adaptation sleeve (10) can be produced out of a transparent plastic in order to improve the view ability for the medical doctor onto the treatment field. The separator (15) is connected to the suction apparatus (A) through the connection tube (16) and through the connector (17).

## APPENDIX

List of references numerals:

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A suction apparatus:

1 hand piece

2 sleeve

3 sonotrode

4 electro-connection

5 connection for flushing liquid

6 flushing line

7 valve

8 thread

9 connection bush

10 adaptation sleeve

11 suction tube

12 receiver part

13 hose connection

14 hose

15 separator

16 connection hose

### **IN THE CLAIMS**

Please amend the claims as follows:

33. (Currently Amended) A medical treatment apparatus kit comprising a hand piece (1); an ultrasound generator disposed in the hand piece (1),

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electrical connection means (4) attached to a rear end of the hand piece (1) and connected to the ultrasound generator and for feeding electrical energy to the ultrasound generator;

a connector (5) disposed near the rear end of the hand piece (1) for connecting a line to a Storage container for a medical flushing liquid;

a sonotrode (3) having a tip and having a rear end attached to the front end of the hand piece (1), and wherein the ultrasound generator is connected to and drives the sonotrode (3) with ultrasound;

a flushing line (6) having a rear end connected to the connector for flushing healing agents to the tip of the sonotrode, wherein the flushing line is aligned relative to an axis of symmetry of the hand piece;

a valve (7) disposed in the flushing line (6).

a channel disposed within the sonotrode (3) for feeding a medical flushing liquid to a front tip of the sonotrode (3) and wherein the channel is connected to a front end of the flushing line (6);

an inner cylindrical thread (8) disposed at a front end of the hand piece (1);

~~wherein the hand piece (1), the ultrasound generator, the electrical connection means (4), the connector (5), the flushing line (6), the valve (7), the inner cylindrical thread (8), the sonotrode (3), and the channel form a base part of a kit;~~

a connection bush (9) having an outer attachment thread on a rear end for attachment to the inner cylindrical thread (8) of the front side of the hand piece (1);

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an adaptation sleeve (10), wherein a front end of the connection bush (9) transitions into a rear end of the adaptation sleeve (10);

wherein the connection bush (9) and the adaptation sleeve (10) are slid over the sonotrode (3) and attached to the hand piece (1);

a suction tube (11) slid over the sonotrode (3), surrounding a front end of the sonotrode (3) and attached to a front end of the adaptation sleeve (10) for suctioning waste medical flushing liquid;

a receiver part (12) disposed with a first end at and branching sideways from the adaptation sleeve (10) for feeding the waste medical flushing liquid;

a hose connection (13) disposed with a first end at a second end of the receiver part (12);

a suction hose (14) attached with a first end to a second end of the hose connection (13) of the adaptation sleeve (10);

~~wherein the connection bush (9), the adaptation sleeve (10), the suction tube (11), the receiver part (12), the hose connection (13), and the suction hose (14) form a first attachment of the kit;~~

a sleeve (2) having an outer attachment thread on a rear end for attachment to the inner cylindrical thread (8) at the front side of the hand piece (1)[.].

~~wherein the sleeve (2) is slid over the sonotrode (3) and attached to the hand piece (1); wherein the sleeve (2) forms a second attachment of the kit.~~

**END OF AMENDMENTS**

***Allowable Subject Matter***

Claims 2-17, 27-31 and 33-34 are allowed over the prior art of record as amended in this office action.

The following is an examiner's statement of reasons for allowance: The claims in this application have been allowed because the prior art of record fails to disclose either singly or in combination the claimed device of a medical treatment apparatus including a hand piece with a ultrasound generator and adaptation sleeve for suctioning medical fumes from a surgery site.

The closest prior art of record is Dieras et al. (USPN4,804,364) and Christ et al. (USPN5,984,889), however these references do not disclose the device as claimed or described above.

Regarding claims 27, 33, and 34, the closest prior art of record fails to teach among all the limitations or render obvious the specifics of the adaptation sleeve arrangement.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D. Koharski whose telephone number is 571-272-7230. The examiner can normally be reached on 7:30am to 4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 5/22/2009

/Christopher D Koharski/  
Examiner, Art Unit 3763

/Nicholas D Lucchesi/  
Supervisory Patent Examiner, Art Unit 3763